

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 607																																																								
Pump: FA-PE 6/10/150/300 RS 15-1	Governor:	Customer: Deutz-MWM																																																								
Fuel-supply p:	Injector:	Engine: TBD 604 L6																																																								
		Power : kw(Bhp)																																																								
		Applic.:																																																								
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.I: 1 680 750 027	Test oil: ISO 4113																																																								
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																									
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																								
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Cylinder 1 on drive side																																																										
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FB mark : Cyl. no. Tol.f.cam spacing: ± 0.5		°CS																																																								
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<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> </div> <div style="flex: 2;"> <ul style="list-style-type: none"> - Enter measured value in test sheet - Enter projection when switched off (CRT = 0) </div> </div>																																																										

BOSCH**IN-LINE INJECTION PUMPS**
Testing and setting valuesAssembly no.:
9 400 365 012

Pump: FA-PE 12/10/150/900 LS 16-1

Customer: Deutz-MWM

Governor:

Engine: TBD 604 V12

Fuel-supply p:

Power: kw(Bhp)

Injector:

Applic.:

Perm.pres.: 1.5 bar NHA: 0 681 443 022

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 172 + 3 bar

(mm) 8 x 2 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

1 417 413 000

40 +5° C

Test pump as per AP _____ LPC 4.1 + 0.1 mm at CRT = 20 mm
 DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side

Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6

Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 345 °CS

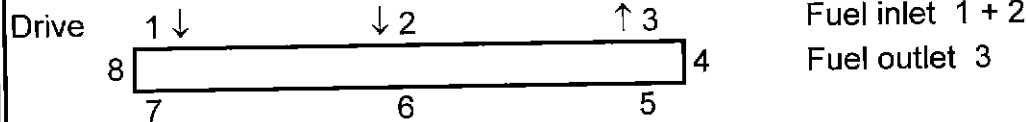
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities

Setting values

Checking values

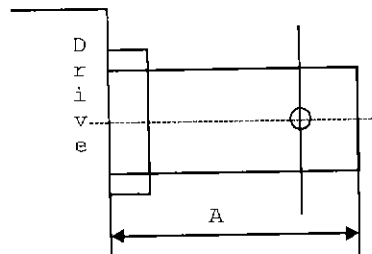
	n rpm	CRT mm	Setting values (mm ³ /H)		Checking values (mm ³ /H)	
			Mean value	Spread	Mean value	Spread
1. Basic setting	750	13	493 - 507	8	489 - 511	12
2. Basic setting	900	13	511 - 539	15	502 - 548	23
3. Basic setting	900	16	622 - 658	20	613 - 667	30
4. Basic setting	300	5	51 - 79	15	44 - 86	23
5. Del.qty. profile						
6. Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

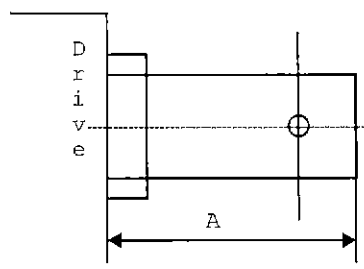
Projection of control rack on drive side
 when set to equal value
 A = approx. 39 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 608					
Pump:	FA-PE 6/10/150/100 LS 17-1	Customer: Deutz-MWM					
Governor:		Engine: TBD 603 V12					
Fuel-supply p:		Power : kw(Bhp)					
Injector:		Applic.:					
Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil:				
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	ISO 4113				
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C				
Test pump as per AP _____ LPC		4.1 + 0.1 mm at CRT	= 20 mm				
DOR clock looking at drive/SD diff. betw. CRT = _____ wise		+0.5 mm u.CRT _{max}	°CS				
Cylinder 1 on drive side							
Cam sequence: 1 - 5 - 3 - 4 - 2 - 6							
Cam spacing: 0 15 120 135 240 255			°CS				
FB mark :	Cyl. no. _____	Tol.f.cam spacing: ± 0.5	°CS				
Delivery quantities		Setting values (mm ³ /H)		Checking values (mm ³ /H)			
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	493 - 507	8	489 - 511	12
2.	Basic setting	900	13	511 - 539	15	502 - 548	23
3.	Basic setting	900	16	622 - 658	20	613 - 667	30
4.	Basic setting	300	5	51 - 79	15	44 - 86	23
5.	Del.qty. profile						
6.	Del.qty. profile						
Drive		1 ↑	2	↓ 3	Fuel inlet 3		
		8			4	Fuel outlet 1	
		7	6	5			
Other test operations: CRT0 = defined by marking the control rack with a locating pin							
Addit. work steps :				Projection of control rack on drive side when set to equal value A = approx. 39 mm			
				<ul style="list-style-type: none"> - Enter measured value in test sheet - Enter projection when switched off (CRT = 0) 			

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 609
Pump: FA-PE 6/10/150/100 LS 18-1	Customer: Deutz-MWM	
Governor:	Engine: TBD 603 V12	
Fuel-supply p:	Power : kw(Bhp)	
Injector:	Applic.:	
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C
Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT	= 20 mm
DOR clock looking at drive/SD diff. betw. CRT =	+0.5 mm u.CRT _{max}	°CS
wise	=	
Cylinder 1 on drive side		
Cam sequence: 1 - 6 - 2 - 4 - 3 - 5		
Cam spacing: 0 15 120 135 240 255		°CS
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5		°CS

Delivery quantities		Setting values (mm ³ /H)			Checking values (mm ³ /H)		
	n rpm	CRT mm	Mean value	Spread	Mean value	Spead	
1. Basic setting	750	13	493 - 507	8	489 - 511	12	
2. Basic setting	900	13	511 - 539	15	502 - 548	23	
3. Basic setting	900	16	622 - 658	20	613 - 667	30	
4. Basic setting	300	5	51 - 79	15	44 - 86	23	
5. Del.qty. profile							
6. Del.qty. profile							

Drive

Fuel inlet 3

Fuel outlet 1

Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:
9 400 365 815

Pump: FA-PE 8/10/160/900 LS 39

Customer: Deutz-MWM

Governor:

Engine: TBD 604 BV8

Fuel-supply p: 0 440 002 031

Power: 960 kw(Bhp)

Injector:

Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar NHA: 0 681 443 022

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 172 + 3 bar

(mm) 8 x 2 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

1 417 413 000

40 +5° C

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm
 DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side

Cam sequence: 1 - 5 - 4 - 2 - 6 - 3 - 7 - 8

Cam spacing: 0 45 90 135 180 225 270 315 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

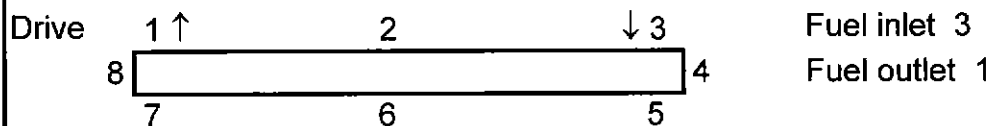
Testoil-ISO 4113

Delivery quantities

Setting values

Checking values

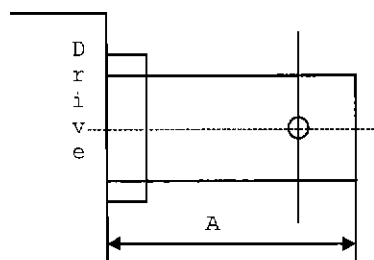
		n	CRT	Setting values (mm ³ /H)		Checking values (mm ³ /H)	
		rpm	mm	Mean value	Spread	Mean value	Spread
1.	Basic setting	750	13	591 - 609	10	586 - 614	15
2.	Basic setting	900	13	615 - 645	16	607 - 653	24
3.	Basic setting	900	15	710 - 740	16	702 - 748	24
4.	Basic setting	300	4.5	35 - 55	10	28 - 62	18
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side
 when set to equal value
 A = approx. 38.5 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 613																																																																											
Pump: FA-PE 6/10/160/300 RS 38	Customer: Deutz-MWM																																																																												
Governor:	Engine: TBD 604 B6L																																																																												
Fuel-supply p:	Power: 720 kw(Bhp)																																																																												
Injector:	Applic.: Lokom./Katamaran																																																																												
Perm.pres.: <u>1.5 bar</u>	NHA: <u>0 681 443 022</u>	Press.l.: <u>1 680 750 027</u>																																																																											
Perm.pos: <u>PS</u>	Open.p.: <u>172 + 3 bar</u>	(mm) <u>8 x 2 x 1500</u>																																																																											
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Test oil: <u>ISO 4113</u> Overflow valve: <u>1 417 413 000</u>																																																																											
Test pump as per AP <u> </u> LPC		<u>4.1 + 0.1 mm at CRT</u> = <u>26 mm</u>																																																																											
DOR clock looking at drive/SD diff. betw. CRT = wise		+0.5 mm u.CRT _{max} °CS = _____ °CS																																																																											
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Cam sequence: <u>1 - 5 - 3 - 6 - 2 - 4</u>																																																																													
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Testoil-ISO 4113

BOSCH IN-LINE INJECTION PUMPS
Testing and setting values

Assembly no.: 9 400 365 017

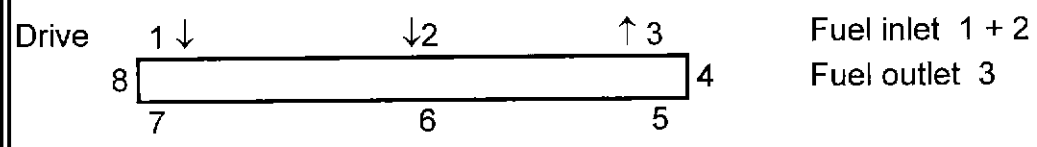
Pump: FA-PE 12/10/160/100 LS 43
Governor:
Fuel-supply p:
Injector:

Customer: Deutz-MWM
Engine: TBD 604 BV12
Power: 144 kw (Bhp)
0)
Applic.: Lokom./Katamaran

Perm pres.: 1.5 bar NHA: 0 681 443 022 Press.l: 1 680 750 027 Test oil: ISO 4113
Perm.pos: PS Open.p.: 172 + 3 bar (mm) 8 x 2 x 1500
When control rack on rear of pump: Overflow valve: 1 417 413 000 40 +5° C
P.S. 1 left, P.S. 2 right

Test pump as per AP _____ LPC 4.1 + 0.1 mm at CRT = 20 mm
DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS
wise = _____ °CS
Cylinder 1 on drive side
Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6
Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 345 °CS
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities		Setting values (mm ³ /H)			Checking values (mm ³ /H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	591 – 609	10	586 – 614	15
2.	Basic setting	900	13	615 – 645	16	607 – 653	24
3.	Basic setting	900	15	710 – 740	16	702 – 748	24
4.	Basic setting	300	4.5	35 - 55	10	28 - 62	18
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : Projection of control rack on drive side when set to equal value
A = approx. 38.5 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 016	
Pump:	FA-PE 12/10/160/900 LS 42	Customer: Deutz-MWM	
Governor:		Engine: TBD 604 BV16	
Fuel-supply p:	0 440 002 031 + 0 440 002 033	Power: 144 kw(Bhp 0)	
Injector:		Applic.: Lokom./Katamaran	
Perm pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil:
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	ISO 4113
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C
Test pump as per AP	LPC	4.1 + 0.1 mm at CRT	= 20 mm
DOR clock looking at drive/SD diff. betw. CRT =		+0.5 mm u.CRT _{max}	°CS
wise		=	
Cylinder 1 on drive side			
Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6			
Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 345			°CS
FB mark : Cyl. no.	Tol.f.cam spacing:±	0.5	°CS

		Setting values				Checking values	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	591 – 609	10	586 – 614	15
2.	Basic setting	900	13	615 – 645	16	607 – 653	24
3.	Basic setting	900	15	710 – 740	16	702 – 748	24
4.	Basic setting	300	4.5	35 - 55	10	28 - 62	18
5.	Del.qty. profile						
6.	Del.qty. profile						

Drive

Fuel inlet 1 + 2

Fuel outlet 3

Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

(H) BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 361 817																																																																
Pump: FA-PE 8/10/160/100 LS 41		Customer: Deutz-MWM																																																																
Governor:		Engine: TBD 604 BV16																																																																
Fuel-supply p:		Power: 192 kw(Bhp) 0 (p)																																																																
Injector:		Applic.: Lokom./Katamaran																																																																
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FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS																																																																		
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5.	Del.qty. profile																																																																	
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<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Drive</p> </div> <div style="text-align: center;"> <p>Fuel inlet 3</p> <p>Fuel outlet 1</p> </div> </div>																																																																		
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Testoil-ISO 4113

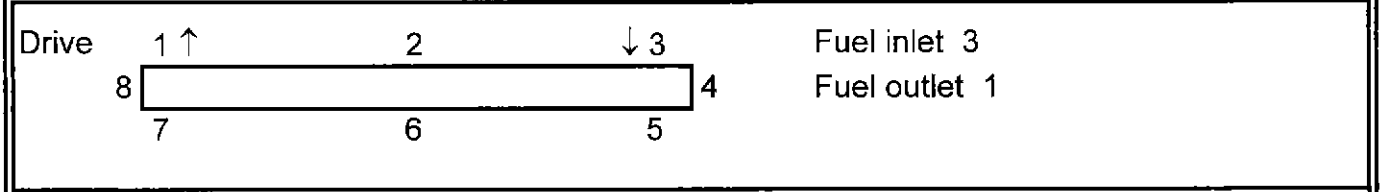
BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 816
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Pump: FA-PE 8/10/160/100 LS 40	Customer: Deutz-MWM
Governor:	Engine: TBD 604 BV16
Fuel-supply p:	Power: 192 kw(Bh 0 p)
Injector:	Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil:
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	ISO 4113
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm
 DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
 wise = _____ °CS
 Cylinder 1 on drive side
 Cam sequence: 1 - 5 - 7 - 8 - 6 - 3 - 4 - 2
 Cam spacing: 0 45 90 135 180 225 270 315 °CS
 FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

	Delivery quantities	Setting values (mm ³ /H)			Checking values (mm ³ /H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	591 – 609	10	586 – 614	15
2.	Basic setting	900	13	615 – 645	16	607 – 653	24
3.	Basic setting	900	15	710 – 740	16	702 – 748	24
4.	Basic setting	300	4.5	35 - 55	10	28 - 62	18
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : Projection of control rack on drive side when set to equal value
 A = approx. 38.5 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

 BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 015
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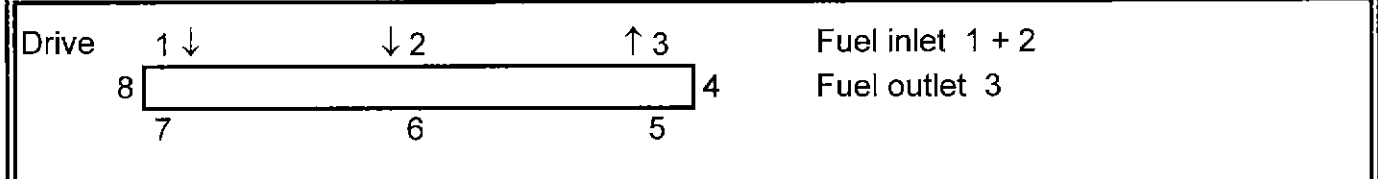
Pump: FA-PE 12/10/160/100 LS 37	Customer: Deutz-MWM
Governor:	Engine: TBD 604 BV12
Fuel-supply p:	Power: kw(Bh p)
Injector:	Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.I: 1 680 750 027	Test oil:
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	ISO 4113
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC 4.1 + 0.1 mm at CRT = 20 mm
 DOR clock looking at drive/SD diff. betw. CRT = _____ +0.5 mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side
 Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6
 Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 345 °CS
 FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities		Setting values (mm ³ /H)			Checking values (mm ³ /H)		
	n rpm	CRT mm	Mean value	Spread	Mean value	Spead	
1.	Basic setting	750	13	591 – 609	10	586 – 614	15
2.	Basic setting	900	13	615 – 645	16	607 – 653	24
3.	Basic setting	900	15	710 – 740	16	702 – 748	24
4.	Basic setting	300	4.5	35 - 55	10	28 - 62	18
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

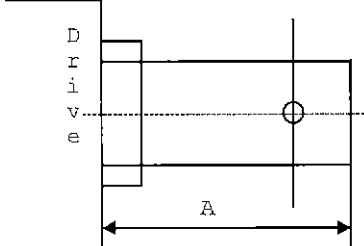
Projection of control rack on drive side when set to equal value
 A = approx. 38.5 mm

- Enter measured value in test sheet
 - Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

(H) BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 814																																																																
Pump: FA-PE 8/10/160/100 LS 36		Customer: Deutz-MWM																																																																
Governor:		Engine: TBD 604 BV16																																																																
Fuel-supply p:		Power : kw(Bh p)																																																																
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Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.I: 1 680 750 027																																																																
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Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 813																																																																
Pump: FA-PE 8/10/160/100 LS 35	Customer: Deutz-MWM																																																																	
Governor:	Engine: TBD 604 BV16																																																																	
Fuel-supply p:	Power : kw(Bh p)																																																																	
Injector:	Applic.: Lokom./Katamaran																																																																	
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.I: 1 680 750 027	Test oil: ISO 4113																																																																
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																																	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																																
Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT _{max} °CS wise = _____ °CS Cylinder 1 on drive side Cam sequence: 1 - 5 - 7 - 8 - 6 - 3 - 4 - 2 Cam spacing: 0 45 90 135 180 225 270 315 °CS FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS																																																																		
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6.	Del.qty. profile																																																																	
<p>Drive 1 ↑ 2 ↓ 3 Fuel inlet 3</p> <p style="text-align: center;">8 _____ 4 Fuel outlet 1</p> <p style="text-align: center;">7 6 5</p>																																																																		
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Testoil-ISO 4113

 BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 612
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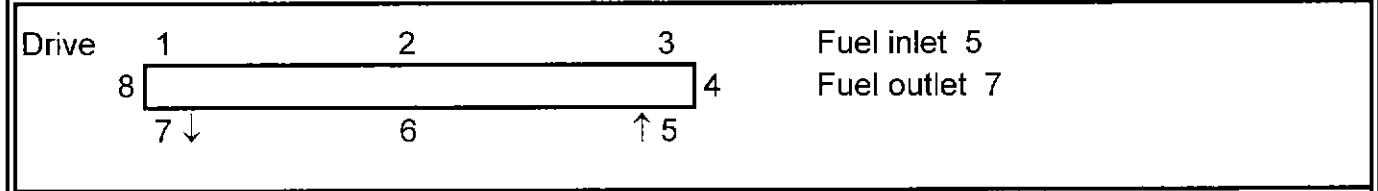
Pump: FA-PE 6/10/160/300 RS 34	Customer: Deutz-MWM
Governor:	Engine: TBD 604 B6L
Fuel-supply p:	Power: kw(Bh p)
Injector:	Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm
 DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side
 Cam sequence: 1 - 5 - 3 - 6 - 2 - 4
 Cam spacing: 0 60 120 180 240 300 °CS
 FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

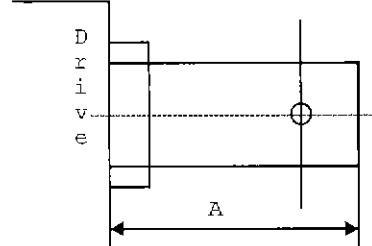
Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	591 - 609	10	586 - 614	15
2.	Basic setting	900	13	615 - 645	16	607 - 653	24
3.	Basic setting	900	15	710 - 740	16	702 - 748	24
4.	Basic setting	300	4.5	35 - 55	10	28 - 62	18
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side when set to equal value
 A = approx. 38.5 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:

9 400 365 014

Pump: FA-PE 12/10/160/900 LS 32

Customer: Deutz-MWM

Governor:

Engine: TBD 604 BV 12

Fuel-supply p:

Power: kw(Bh p)

Injector:

Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar NHA: 0 681 443 022

Press.l.: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 172 + 3 bar

(mm) 8 x 2 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

1 417 413 000

40 +5° C

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm
 DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
 wise = _____

Cylinder 1 on drive side

Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6

Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 345 °CS

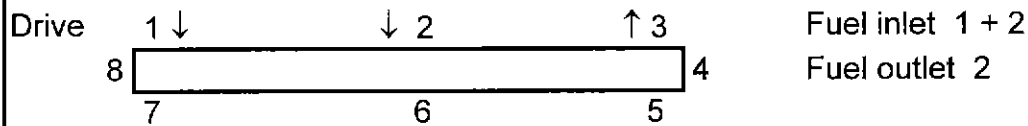
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities

Setting values

Checking values

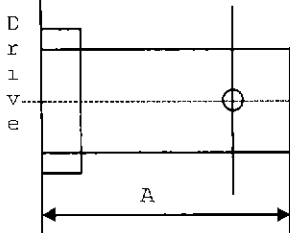
		Setting values (mm ³ /H)			Checking values (mm ³ /H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	591 - 609	10	586 - 614	15
2.	Basic setting	900	13	615 - 645	16	607 - 653	24
3.	Basic setting	900	15	710 - 740	16	702 - 748	24
4.	Basic setting	300	4.5	35 - 55	10	28 - 62	18
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side
 when set to equal value
 A = approx. 39 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113


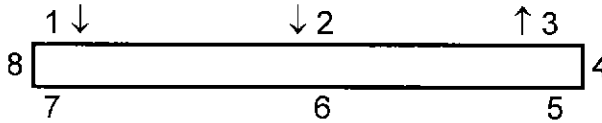
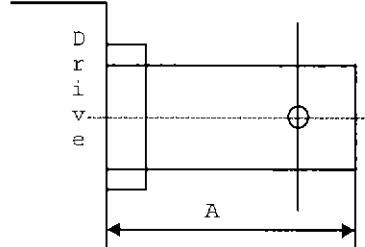
Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 611																																																																
Pump: FA-PE 6/10/160/300 RS 31	Customer: Deutz-MWM																																																																	
Governor:	Engine: TBD 604 B L6																																																																	
Fuel-supply p:	Power: kw(Bh p)																																																																	
Injector:	Applic.:																																																																	
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																																
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Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 811																																																														
Pump: FA-PE 8/10/160/900 4 LS 30	Customer: Deutz-MWM																																																															
Governor:	Engine: TBD 604 BV8																																																															
Fuel-supply p:	Power: kw(Bh p)																																																															
Injector:	Applic.:																																																															
Perm pres.: 1.5 bar NHA: 0 681 443 022	Press.I: 1 680 750 027	Test oil: ISO 4113																																																														
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																															
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																														
Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT	= 20 mm																																																														
DOR clock looking at drive/SD diff. betw. CRT = wise _____	+0.5 mm u.CRT _{max}	°CS																																																														
Cylinder 1 on drive side																																																																
Cam sequence: 1 - 5 - 4 - 2 - 6 - 3 - 7 - 8																																																																
Cam spacing: 0 45 90 135 180 225 270 315	°CS																																																															
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Testoil-ISO 4113

 BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 013
Pump: FA-PE 12/10/160/900 LS 29	Customer: Deutz-MWM	
Governor:	Engine: TBD 604 BV12	
Fuel-supply p:	Power : kw(Bh p)	
Injector:	Applic.:	
Perm pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C
Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT = 20 mm	
DOR clock looking at drive/SD diff. betw. CRT = wise _____ = _____ °CS	+0.5 mm u.CRT _{max}	
Cylinder 1 on drive side		
Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6		
Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 315	°CS	
FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS		
Delivery quantities	Setting values (mm³/H)	Checking values (mm³/H)
	n rpm CRT mm Mean value Spread	Mean value Spead
1. Basic setting	750 16.5 731 - 749 10	726 - 754 15
2. Basic setting	900 16.5 705 - 735 16	697 - 743 24
3. Basic setting	900 13.0 760 - 780 16	552 - 598 24
4. Basic setting	300 5.0 50 - 80 15	43 - 87 23
5. Del.qty. profile		
6. Del.qty. profile		
Drive		Fuel inlet 1 + 2 Fuel outlet 2
Other test operations:	CRT0 = defined by marking the control rack with a locating pin	
Addit. work steps :	Projection of control rack on drive side when set to equal value A = approx. 39 mm	
	<ul style="list-style-type: none"> - Enter measured value in test sheet - Enter projection when switched off (CRT = 0) 	

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 809
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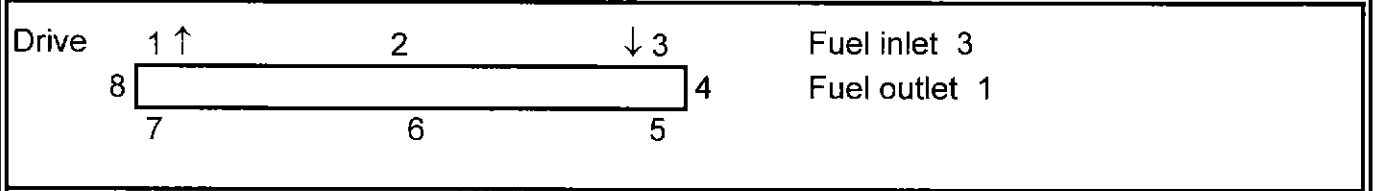
Pump: FA-PE 8/10/150/900 4 LS 26-1	Customer: Deutz-MWM
Governor:	Engine: TBD 604 V8
Fuel-supply p:	Power: kw(Bh p)
Injector:	Applic.:

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm
DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
wise = _____ °CS

Cylinder 1 on drive side
Cam sequence: 1 - 5 - 4 - 2 - 6 - 3 - 7 - 8
Cam spacing: 0 45 90 135 180 225 270 315 °CS
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	493 – 507	8	489 – 511	12
2.	Basic setting	900	13	511 – 539	15	502 – 548	23
3.	Basic setting	900	16	622 – 658	20	613 – 667	30
4.	Basic setting	300	5	51 - 79	15	44 - 86	23
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

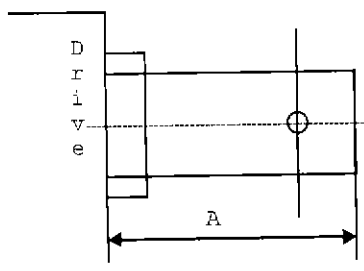
Projection of control rack on drive side
when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 361 601																																																															
Pump: FA-PE 6/9M/170/700/3 S2	Customer:																																																																
Governor:	Engine: AGO195V12CSMR																																																																
Fuel-supply p:	Power: kw(Bhp)																																																																
Injector:	Applic.:																																																																
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																															
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When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																															
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DOR clock looking at drive/SD diff. betw. CRT = wise _____	+0.5 mm u.CRT _{max}	°CS																																																															
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Cam sequence: 1 - 5 - 3 - 6 - 2 - 4																																																																	
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- Enter measured value in test sheet - Enter projection when switched off (CRT = 0)																																																																	

Testoil-ISO 4113

BOSCH		IN-LINE INJECTION PUMPS Testing and setting values			Assembly no.: 9 400 361 602		
Pump: FA-PE 6/9M/170/700/3 S3				Customer:			
Governor:				Engine: AGO195V12CSMR			
Fuel-supply p:				Power: kw(Bhp)			
Injector:				Applic.:			
Perm.pres.: 1.5 bar		NHA: 0 681 443 022		Press.l: 1 680 750 027		Test oil: ISO 4113	
Perm.pos: PS		Open.p.: 172 + 3 bar		(mm) 8 x 2 x 1500			
When control rack on rear of pump: P.S. 1 left, P.S. 2 right				Overflow valve: 1 417 413 000		40 +5° C	
Test pump as per AP		LPC		6.6 + 0.1 mm at CRT		= 27 mm	
DOR clock looking at drive/SD diff. betw. CRT =		wise		+0.5 mm u.CRT _{max}		°CS	
Cylinder 1 on drive side		Cam sequence: 1 - 5 - 3 - 6 - 2 - 4					
Cam spacing: 0 60 120 180 240 300						°CS	
FB mark : Cyl. no. _____		Tol.f.cam spacing: ± 0.5				°CS	
Delivery quantities			Setting values (mm³/H)			Checking values (mm³/H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	18	622 - 638	12		
2.	Basic setting	750	15	420 - 440	15		
3.	Basic setting	300	12	203 - 227	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						
Drive	1 ↓	↑ 2	3	Fuel inlet 1			
	8	7	6	4	5	Fuel outlet 2	
Other test operations: CRT0 = defined by marking the control rack with a locating pin							
Addit. work steps :				Projection of control rack on drive side when set to equal value A = approx. 39 mm			
				<ul style="list-style-type: none"> - Enter measured value in test sheet - Enter projection when switched off (CRT = 0) 			

BOSCH

IN-LINE INJECTION PUMPS

Testing and setting values

Assembly no.:
9 400 361 801

Pump: FA-PE 8/9M/170/900/6 S4

Customer: SACM

Governor:

Engine: AGO195V16CSMR

Fuel-supply p:

Power: kw(Bhp)

Injector:

Applic.:

Perm.pres.: 1.5 bar NHA: 0 681 443 022

Press.l: 1 680 750 027

Test oil:
ISO 4113

Perm.pos: PS Open.p.: 172 + 3 bar

(mm) 8 x 2 x 1500

When control rack on rear of pump:

Overflow valve:
1 417 413 000

40 +5° C

P.S. 1 left, P.S. 2 right

Test pump as per AP _____ LPC
DOR clock looking at drive/SD diff. betw. CRT =
_____ wise = _____ °CS

2.4 + 0.1 mm at CRT = 26 mm
+0.5 mm u.CRT_{max} °CS

Cylinder 1 on drive side

Cam sequence: 1 - 3 - 4 - 7 - 8 - 6 - 5 - 2

Cam spacing: 60 ± 0,5

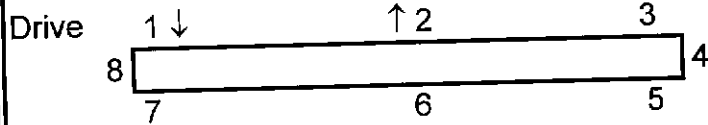
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities

Setting values
(mm³/H)

Checking values
(mm³/H)

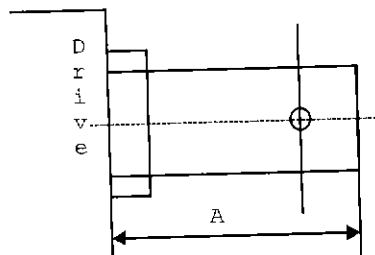
	n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1. Basic setting	750	21	772 - 788	12		
2. Basic setting	750	18	622 - 638	12		
3. Basic setting	750	15	420 - 440	15		
4. Basic setting	300	12	203 - 227	20		
5. Del.qty. profile						
6. Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side
when set to equal value
A = approx. 39 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.:
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Pump: FA-PE 8/9M/170/500/6 S5	Customer: SACM
Governor:	Engine: AGO195V16CSMR
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.:

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC 4.1 + 0.1 mm at CRT = 20 mm

DOR clock looking at drive/SD diff. betw. CRT = _____ +0.5 mm u.CRT_{max} °CS

wise = _____ °CS

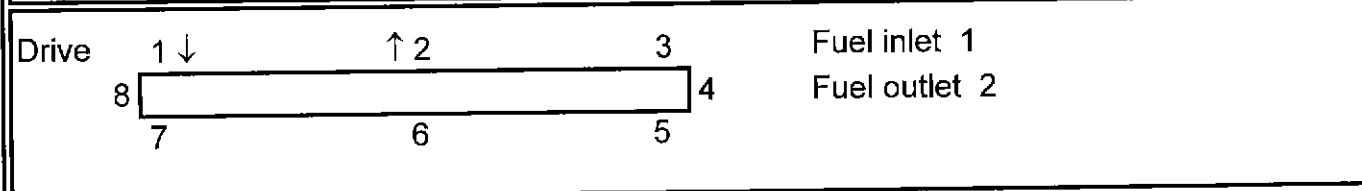
Cylinder 1 on drive side

Cam sequence: 1 - 3 - 4 - 7 - 8 - 6 - 5 - 2

Cam spacing: 60 ± 0,5 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	21	772 – 788	12		
2.	Basic setting	750	18	622 – 638	12		
3.	Basic setting	750	15	420 – 440	15		
4.	Basic setting	300	12	203 – 227	20		
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS			Assembly no.:			
	Testing and setting values			9 400 361 603			
Pump:	FA-PE 6/9M/170/700/3 S 6				Customer:		
Governor:					Engine: AGO195V12CSMR		
Fuel-supply p:					Power: kw(Bhp)		
Injector:					Applic.:		
Perm.pres :	1.5 bar	NHA:	0 681 443 022	Press.l:	1 680 750 027	Test oil:	
Perm.pos:	PS	Open.p.:	172 + 3 bar	(mm)	8 x 2 x 1500	ISO 4113	
When control rack on rear of pump:			Overflow valve:			40 +5° C	
P.S. 1 left, P.S. 2 right			1 417 413 000				
Test pump as per AP			LPC	6.6 + 0.1 mm at CRT	=	27 mm	
DOR clock looking at drive/SD diff. betw. CRT =				+0.5 mm u.CRT _{max}	=	°CS	
wise				=			
Cylinder 1 on drive side							
Cam sequence: 1 - 5 - 3 - 6 - 2 - 4							°CS
Cam spacing: 0 60 120 180 240 300							
FB mark : Cyl. no.			Tol.f.cam spacing:±		0.5		°CS

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	18	622 - 638	12		
2.	Basic setting	750	15	420 - 440	15		
3.	Basic setting	300	12	203 - 227	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						

Drive

Fuel inlet 1

Fuel outlet 2

Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 361 604
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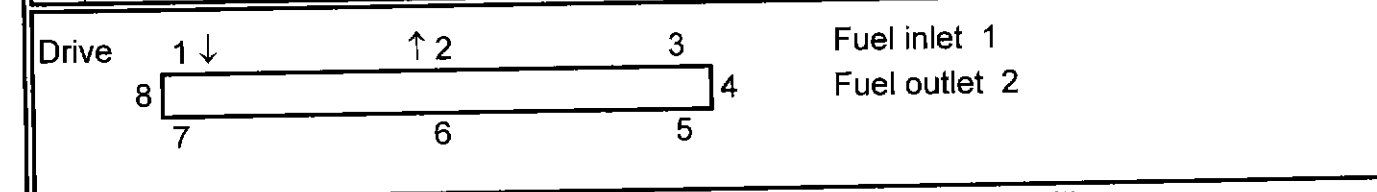
Pump: FA-PE 6/9M/170/300/3 S 7	Customer:
Governor:	Engine: AGO195V12CSMR
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.:

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC $6.6 +0.1$ mm at CRT = 27 mm
DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
wise = _____ °CS

Cylinder 1 on drive side
Cam sequence: 1 - 5 - 3 - 6 - 2 - 4
Cam spacing: 0 60 120 180 240 300 °CS
FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	18	622 – 638	12		
2.	Basic setting	750	15	520 – 440	15		
3.	Basic setting	300	12	203 – 227	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)



IN-LINE INJECTION PUMPS

Testing and setting values

Assembly no.:
9 400 361 803

Pump: FA-PE 8/9M/170/900/6 S 8

Customer: SACM

Governor:

Engine: AGO195V16CSMR

Fuel-supply p:

Power : kw(Bhp)

Injector:

Applic.:

Perm pres.: 1.5 bar NHA: 0 681 443 022

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 172 + 3 bar

(mm) 8 x 2 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

1 417 413 000

40 +5° C

Test pump as per AP _____ LPC 2.4 +0.1 mm at CRT = 26 mm
DOR clock looking at drive/SD diff. betw. CRT = _____ +0.5 mm u.CRT_{max} °CS
wise _____ = _____

Cylinder 1 on drive side

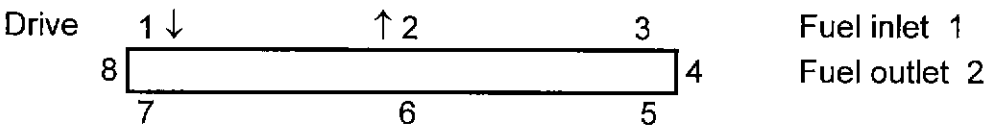
Cam sequence: 1 - 3 - 4 - 7 - 8 - 6 - 5 - 2

Cam spacing: 60 ± 0.5 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

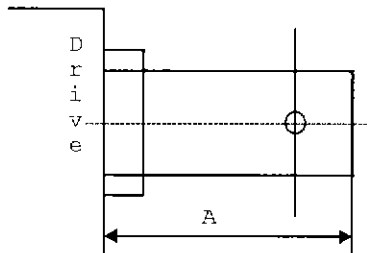
Testoil-ISO 4113

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)			
		n rpm	CRT mm	Mean value	Spread	Mean value	Spread		
1.	Basic setting	750	21	772 – 788	12				
2.	Basic setting	750	18	622 – 638	12				
3.	Basic setting	750	15	420 – 440	15				
4.	Basic setting	300	12	203 – 227	20				
5.	Del.qty. profile								
6.	Del.qty. profile								



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : Projection of control rack on drive side when set to equal value
A = approx. 39 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 361 804	
Pump:	FA-PE 8/9M/170/500/6 S 9	Customer: SACM	
Governor:		Engine: AGO195V16CSMR	
Fuel-supply p:		Power : kw(Bhp)	
Injector:		Applic.:	
Perm.pres.: <u>1.5</u> bar	NHA: <u>0 681 443 022</u>	Press.l: <u>1 680 750 027</u>	Test oil: ISO 4113
Perm.pos: <u>PS</u>	Open.p.: <u>172 + 3</u> bar	(mm) <u>8 x 2 x 1500</u>	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: <u>1 417 413 000</u>	40 +5° C
Test pump as per AP _____ LPC		<u>2.4 + 0.1</u> mm at CRT	= <u>26</u> mm
DOR clock looking at drive/SD diff. betw. CRT = _____		<u>+0.5</u> mm u.CRT _{max}	°CS
Cylinder <u>1</u> on drive side			
Cam sequence: <u>1 - 3 - 4 - 7 - 8 - 6 - 5 - 2</u>			°CS
Cam spacing: <u>60 ± 0,5</u>			
FB mark :	Cyl. no. _____	Tol.f.cam spacing: ± <u>0.5</u>	°CS

Delivery quantities		Setting values (mm³/H)				Checking values (mm³/H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	21	772 – 788	12		
2.	Basic setting	750	18	622 – 638	12		
3.	Basic setting	750	15	420 – 440	15		
4.	Basic setting	300	12	203 – 227	20		
5.	Del.qty. profile						
6.	Del.qty. profile						

Drive

Fuel inlet 1

Fuel outlet 2

Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

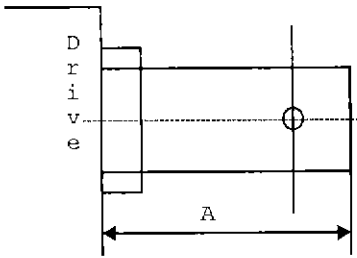
Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 601																																																								
Pump: FA-PE 6/10/150/300 RS 10	Customer: Deutz-MWM	Engine: TBD 604 L6																																																								
Governor:	Power: kw(Bhp)																																																									
Fuel-supply p:	Applic.:																																																									
Injector:																																																										
Perm.pres: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																								
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																									
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																								
Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT	= 20 mm																																																								
DOR clock looking at drive/SD diff. betw. CRT = wise _____	+0.5 mm u.CRT _{max}	°CS																																																								
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Cam spacing: 0 60 120 180 240 300		°CS																																																								
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Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 602																																																															
Pump: FA-PE 6/10/150/300/3 LS 11	Governor:	Customer:																																																															
Fuel-supply p:	Injector:	Engine: TBD 603 L12																																																															
		Power : kw(Bhp)																																																															
		Applic.:																																																															
Perm.pres : 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																															
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																																
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																															
Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT = 15 mm																																																																
DOR clock looking at drive/SD diff. betw. CRT = wise _____	+0.5 mm u.CRT _{max} _____ °CS																																																																
Cylinder 1 on drive side																																																																	
Cam sequence: 1 - 6 - 2 - 4 - 3 - 5																																																																	
Cam spacing: 0 15 120 135 240 255		°CS																																																															
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5		°CS																																																															
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- Enter measured value in test sheet - Enter projection when switched off (CRT = 0)																																																																	

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 801					
Pump: FA-PE 8/10/150/100 LS 12		Customer: Südbremse					
Governor:		Engine: MWM TBD 603V16					
Fuel-supply p:		Power: kw(Bhp)					
Injector:		Applic.:					
Perm.pres.: 1.5 bar NHA: 0 681 443 022		Press.l: 1 680 750 027					
Perm.pos: PS Open.p.: 172 + 3 bar		(mm) 8 x 2 x 1500					
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Test oil: ISO 4113					
		Overflow valve: 1 417 413 000					
Test pump as per AP _____ LPC		4.1 + 0.1 mm at CRT = 15 mm					
DOR clock looking at drive/SD diff. betw. CRT = _____		+0.5 mm u.CRT _{max} °CS					
wise _____ = _____							
Cylinder 1 on drive side							
Cam sequence: 1 - 3 - 4 - 2 - 7 - 8 - 6 - 5							
Cam spacing: 0 45 90 135 180 225 270 315 °CS							
FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS							
Delivery quantities		Setting values (mm ³ /H)					
		Checking values (mm ³ /H)					
	n rpm	CRT mm					
		Mean value					
		Spread					
		Mean value					
		Spead					
1.	Basic setting	750	13.5	493 - 507	8	489 - 511	12
2.	Basic setting	900	13.5	511 - 539	15	502 - 548	23
3.	Basic setting	900	16.5	622 - 658	20	613 - 667	30
4.	Basic setting	300	5.5	51 - 79	15	44 - 86	23
5.	Del.qty. profile						
6.	Del.qty. profile						
Drive		1 ↓	↑ 2	3	Fuel inlet 1		
		8	6	5	Fuel outlet 2		
		7		4			
Other test operations: CRT0 = defined by marking the control rack with a locating pin							
Addit. work steps :				Projection of control rack on drive side when set to equal value A = approx. 39 mm			
				<ul style="list-style-type: none"> - Enter measured value in test sheet - Enter projection when switched off (CRT = 0) 			

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 603
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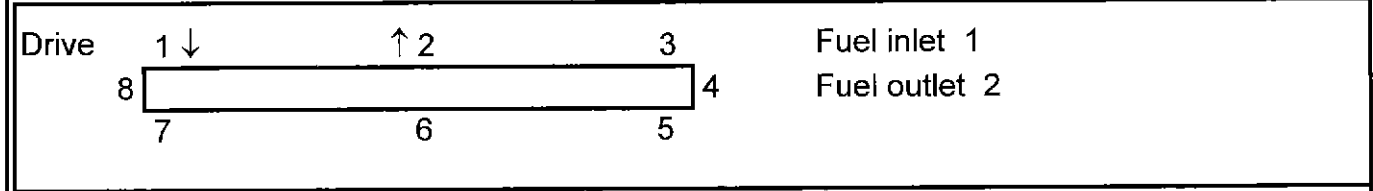
Pump: FA-PE 6/10/150/300/3 LS 13	Customer:
Governor:	Engine: TBD 603 V 12
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.:

Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.I: 1 680 750 027	Test oil:
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	ISO 4113
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC 4.1 + 0.1 mm at CRT = 15 mm
DOR clock looking at drive/SD diff. betw. CRT = _____ +0.5 mm u.CRT_{max} °CS
wise _____ = _____ °CS

Cylinder 1 on drive side
Cam sequence: 1 - 5 - 3 - 4 - 2 - 6
Cam spacing: 0 15 120 135 240 255 °CS
FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS

	Delivery quantities	Setting values (mm ³ /H)			Checking values (mm ³ /H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spread
1.	Basic setting	750	13.5	493 - 507	8	489 - 511	12
2.	Basic setting	900	13.5	511 - 539	15	502 - 548	23
3.	Basic setting	900	16.5	622 - 658	20	613 - 667	30
4.	Basic setting	300	5.5	51 - 79	15	44 - 46	23
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

 BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.:

Pump:	FA-PE 8/10/150/100 LS 14	Customer:	Südbremse
Governor:		Engine:	MWM TBD 603V16
Fuel-supply p:		Power:	kw(Bhp)
Injector:		Applic.:	

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil:
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve:	40 +5° C
		1 417 413 000	

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 15 mm

DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS

wise _____ = _____

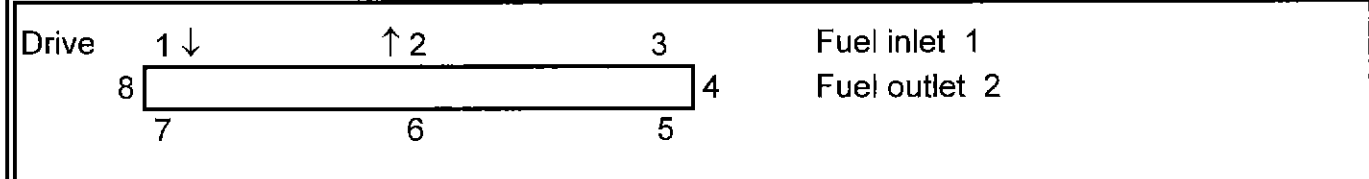
Cylinder 1 on drive side

Cam sequence: 1 - 3 - 6 - 5 - 7 - 8 - 4 - 2

Cam spacing: 0 45 90 135 180 225 270 315 °CS

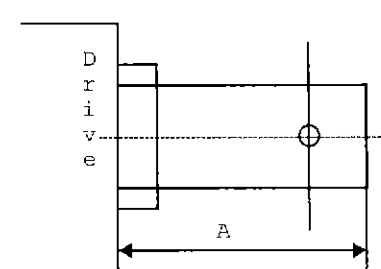
FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS

Delivery quantities		Setting values (mm ³ /H)			Checking values (mm ³ /H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spread
1.	Basic setting	750	13.5	493 - 507	8	489 - 511	12
2.	Basic setting	900	13.5	511 - 539	15	502 - 548	23
3.	Basic setting	900	16.5	622 - 658	20	613 - 667	30
4.	Basic setting	300	5.5	51 - 79	15	44 - 86	23
5.	Del.qty. profile						
6.	Del.qty. profile						



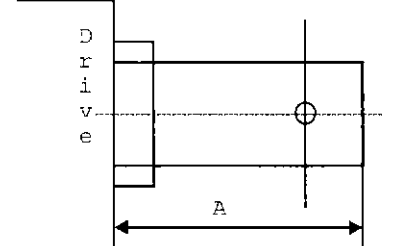
Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : Projection of control rack on drive side when set to equal value
A = approx. 39 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 604																																																																
Pump: FA-PE 6/10/150/300 RS	Customer: Deutz-MWM																																																																	
Governor:	Engine: TBD 604 L6																																																																	
Fuel-supply p:	Power : kw(Bhp)																																																																	
Injector:	Applic.:																																																																	
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																																
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Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT = 20 mm																																																																	
DOR clock looking at drive/SD diff. betw. CRT = wise _____	+0.5 mm u.CRT _{max} _____ °CS																																																																	
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Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 010																																																																
Pump: FA-PE 12/10/150/900/6 LS 16	Customer: Südbremse	Engine: MWM TBD 604V12																																																																
Governor:	Power: kw(Bhp)	Applic.:																																																																
Fuel-supply p:																																																																		
Injector:																																																																		
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																																
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																																	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																																
Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT	= 20 mm																																																																
DOR clock looking at drive/SD diff. betw. CRT = _____ wise	+0.5 mm u.CRT _{max}	°CS																																																																
Cylinder 1 on drive side																																																																		
Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6																																																																		
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Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 605
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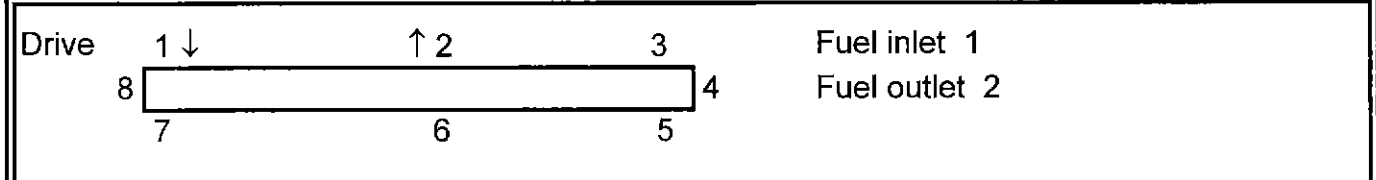
Pump: FA-PE 6/10/150/100 LS 17	Customer: Südbremse
Governor:	Engine: MWM TBD 603V12
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.:

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

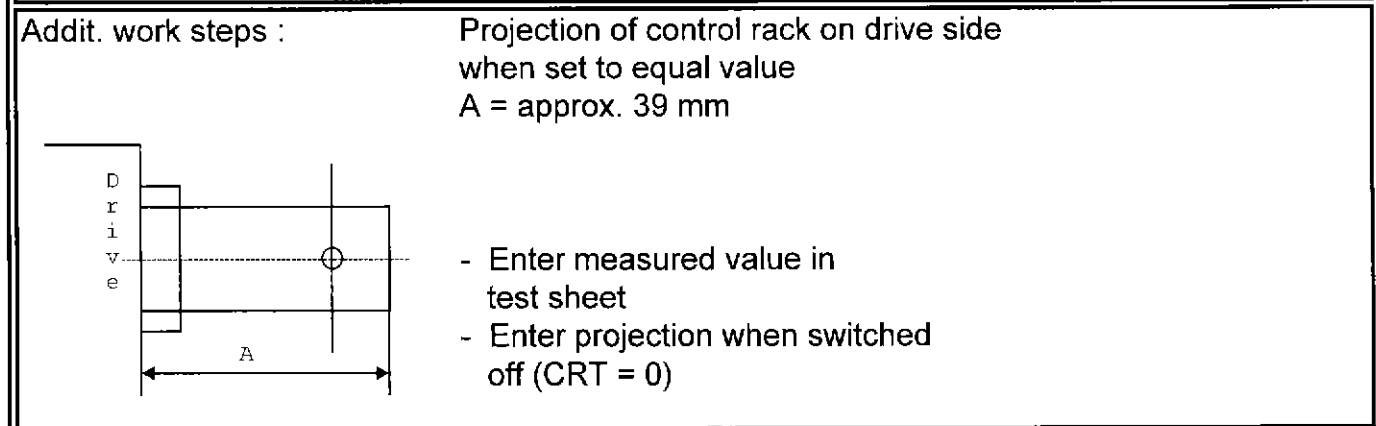
Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm
DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
wise = _____ °CS

Cylinder 1 on drive side
Cam sequence: 1 - 5 - 3 - 4 - 2 - 6
Cam spacing: _____ °CS
FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS

	Delivery quantities	Setting values (mm³/H)				Checking values (mm³/H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead	
1.	Basic setting	750	13	493 - 507	8	489 - 511	12	
2.	Basic setting	900	13	511 - 539	15	502 - 548	23	
3.	Basic setting	900	16	622 - 658	20	613 - 667	30	
4.	Basic setting	300	5	51 - 79	15	44 - 86	23	
5.	Del.qty. profile							
6.	Del.qty. profile							



Other test operations: CRT0 = defined by marking the control rack with a locating pin



Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 606
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Pump: FA-PE 6/10/150/100 LS 18	Customer: Südbremse
Governor:	Engine: MWM TBD 603V12
Fuel-supply p:	Power : kw(Bhp)
Injector:	Applic.:

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Test oil: ISO 4113
		Overflow valve: 1 417 413 000
		40 +5° C

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm

DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS

wise _____ = _____ °CS

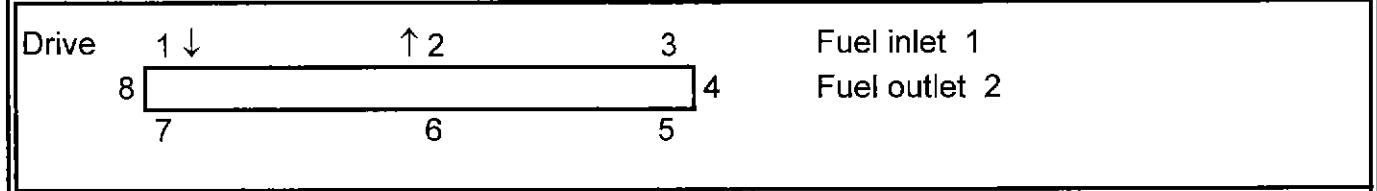
Cylinder 1 on drive side

Cam sequence: 1 - 5 - 3 - 4 - 2 - 6

Cam spacing: _____ °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS

	Delivery quantities	Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	13	493 - 507	8	489 - 511	12
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5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

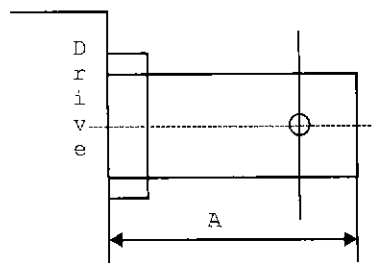
Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 803																																																																
Pump: FA-PE 8/10/150/900/4 LS 19	Customer: Südbremse	Engine: MWM TBD 604 V8																																																																
Governor:	Power: kw(Bhp)	Applic.:																																																																
Fuel-supply p:																																																																		
Injector:																																																																		
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																																
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DOR clock looking at drive/SD diff. betw. CRT = _____ wise	+0.5 mm u.CRT _{max} = _____ °CS																																																																	
Cylinder 1 on drive side																																																																		
Cam sequence: 1 - 5 - 4 - 2 - 6 - 3 - 7 - 8																																																																		
Cam spacing: 0 45 90 135 180 225 270 315		°CS																																																																
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Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 365 804																																																								
Pump: FA-PE 8/10/150/100 LS 20	Customer: Deutz-MWM	Engine: TBD 603 V16																																																								
Governor:	Fuel-supply p:	Power: kw(Bhp)																																																								
Injector:	Applic.:																																																									
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																								
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																									
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Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT	= 20 mm																																																								
DOR clock looking at drive/SD diff. betw. CRT = _____ wise	+0.5 mm u.CRT _{max}	°CS																																																								
Cylinder 1 on drive side																																																										
Cam sequence: 1 - 3 - 4 - 2 - 7 - 8 - 6 - 5																																																										
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Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 805
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Pump: FA-PE 8/10/150/100 LS 21	Customer: Deutz-MWM
Governor:	Engine: MWM TBD 603V16
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.:

Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil:
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	ISO 4113
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C

Test pump as per AP _____ LPC $4.1 + 0.1$ mm at CRT = 20 mm

DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS

wise _____ = _____ °CS

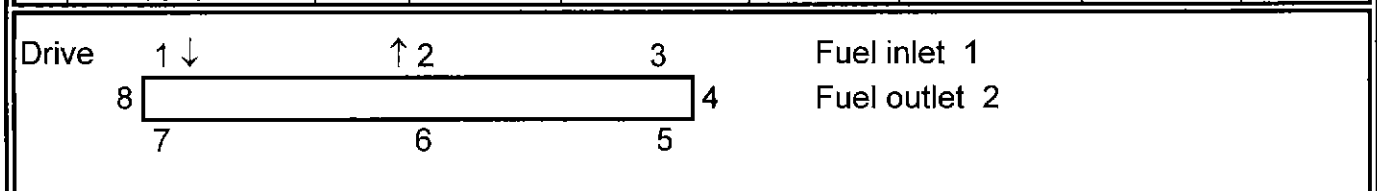
Cylinder 1 on drive side

Cam sequence: 1 - 3 - 6 - 5 - 7 - 8 - 4 - 2

Cam spacing: 0 45 90 135 180 225 270 315 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5 °CS

Delivery quantities		Setting values				Checking values	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spread
1.	Basic setting	750	13	493 - 507	8	489 - 511	12
2.	Basic setting	900	13	511 - 539	15	502 - 548	23
3.	Basic setting	900	16	622 - 658	20	613 - 667	30
4.	Basic setting	300	5	51 - 79	15	44 - 86	23
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 361 001
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Pump: FA-PE 10/9M/180/100 S 2	Customer:
Governor:	Engine: AGO 195-V20
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.:

Perm.pres: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Test oil: ISO 4113
		Overflow valve: 1 417 413 000
		40 +5° C

Test pump as per AP _____ LPC 4.4 + 0.1 mm at CRT = 26 mm

DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS

wise _____ = _____

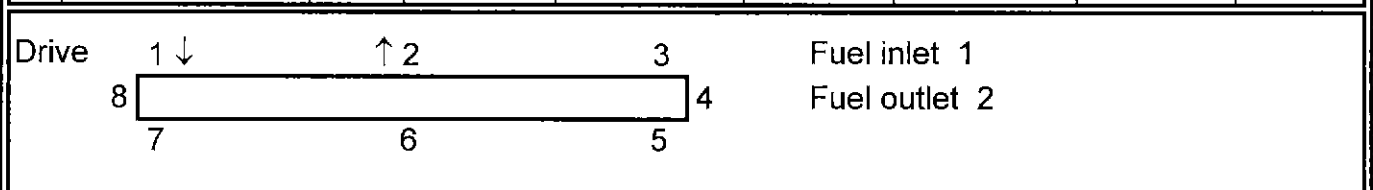
Cylinder 1 on drive side

Cam sequence: 1 - 3 - 6 - 9 - 7 - 10 - 8 - 5 - 2 - 4

Cam spacing: 0 36 72 108 144 180 216 252 288 324 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	23	1060 – 1080	18		
2.	Basic setting	750	15	568 – 592	22		
3.	Basic setting	300	12	246 – 274	27		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side
when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 361 002	
Pump:	FA-PE 10/9M/180/100 S 23	Customer:	
Governor:		Engine: AGO 195-V20	
Fuel-supply p:		Power : kw(Bhp)	
Injector:		Applic.:	
Perm.pres.: 1.5 bar	NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil:
Perm.pos: PS	Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500	ISO 4113
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 1 417 413 000	40 +5° C
Test pump as per AP _____ LPC		4.4 + 0.1 mm at CRT	= 26 mm
DOR clock looking at drive/SD diff. betw. CRT = _____ wise		+0.5 mm u.CRT _{max}	°CS
Cylinder 1 on drive side			
Cam sequence: 1 - 3 - 6 - 9 - 7 - 10 - 8 - 5 - 2 - 4			
Cam spacing: 0 36 72 108 144 180 216 252 288 324 °CS			
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS			

Delivery quantities		Setting values (mm ³ /H)			Checking values (mm ³ /H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	23	1060 – 1080	18		
2.	Basic setting	750	15	568 – 592	22		
3.	Basic setting	300	12	246 – 274	27		
	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						

Drive

Fuel inlet 1

Fuel outlet 2

Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side
when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 400 361 805																																																																
Pump: FA-PE 8/9M/180/100 S 24	Customer:	Engine: AGO 195 V 16 C																																																																
Governor:	Power: kw(Bhp)																																																																	
Fuel-supply p:	Applic.:																																																																	
Injector:																																																																		
Perm.pres.: 1.5 bar NHA: 0 681 443 022	Press.l: 1 680 750 027	Test oil: ISO 4113																																																																
Perm.pos: PS Open.p.: 172 + 3 bar	(mm) 8 x 2 x 1500																																																																	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right	Overflow valve: 1 417 413 000	40 +5° C																																																																
Test pump as per AP _____ LPC	4.1 + 0.1 mm at CRT	= 20 mm																																																																
DOR clock looking at drive/SD diff. betw. CRT = _____ wise	+0.5 mm u.CRT _{max}	°CS																																																																
Cylinder 1 on drive side																																																																		
Cam sequence: 1 - 3 - 4 - 7 - 8 - 6 - 5 - 2																																																																		
Cam spacing: 0 45 90 135 180 225 270 315		°CS																																																																
FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.5		°CS																																																																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Delivery quantities</th> <th colspan="4" style="text-align: center;">Setting values (mm³/H)</th> <th colspan="2" style="text-align: right;">Checking values (mm³/H)</th> </tr> <tr> <th></th> <th></th> <th>n rpm</th> <th>CRT mm</th> <th>Mean value</th> <th>Spread</th> <th>Mean value</th> <th>Spead</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Basic setting</td> <td>750</td> <td>23</td> <td>1060 - 1808</td> <td>18</td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td>Basic setting</td> <td>750</td> <td>15</td> <td>568 - 592</td> <td>22</td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td>Basic setting</td> <td>300</td> <td>12</td> <td>246 - 274</td> <td>27</td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td>Basic setting</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td>Del.qty. profile</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.</td> <td>Del.qty. profile</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)				n rpm	CRT mm	Mean value	Spread	Mean value	Spead	1.	Basic setting	750	23	1060 - 1808	18			2.	Basic setting	750	15	568 - 592	22			3.	Basic setting	300	12	246 - 274	27			4.	Basic setting							5.	Del.qty. profile							6.	Del.qty. profile						
Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)																																																												
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead																																																											
1.	Basic setting	750	23	1060 - 1808	18																																																													
2.	Basic setting	750	15	568 - 592	22																																																													
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Other test operations: CRT0 = defined by marking the control rack with a locating pin																																																																		
Addit. work steps : Projection of control rack on drive side when set to equal value A = approx. 39 mm																																																																		
<ul style="list-style-type: none"> - Enter measured value in test sheet - Enter projection when switched off (CRT = 0) 																																																																		

Testoil-ISO 4113

BOSCH **IN-LINE INJECTION PUMPS**
Testing and setting values

Assembly no.:
9 400 361 806

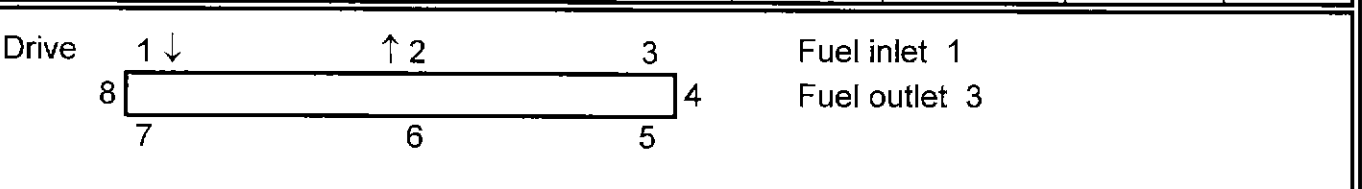
Pump: FA-PE 8/9M/180/100/S 25
Governor:
Fuel-supply p:
Injector:

Customer:
Engine: AGO 195 V 16 C
Power: kw(Bhp)
Applic.:

Perm.pres. 1.5 bar NHA: 0 681 443 022 Press.l: 1 680 750 027 Test oil:
Perm.pos: PS Open.p.: 172 + 3 bar (mm) 8 x 2 x 1500 ISO 4113
When control rack on rear of pump:
P.S. 1 left, P.S. 2 right Overflow valve:
1 417 413 000 40 +5° C

Test pump as per AP _____ LPC 4.1 + 0.1 mm at CRT = 20 mm
DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS
wise = _____ °CS
Cylinder 1 on drive side
Cam sequence: 1 - 3 - 4 - 7 - 8 - 6 - 5 - 2
Cam spacing: 0 45 90 135 180 225 270 315 °CS
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

	Delivery quantities	Setting values (mm ³ /H)			Checking values (mm ³ /H)		
		n rpm	CRT mm	Mean value	Spread	Mean value	Spread
1.	Basic setting	750	13	493 - 507	8	489 - 511	12
2.	Basic setting	900	13	511 - 539	15	502 - 548	23
3.	Basic setting	900	16	622 - 658	20	613 - 667	30
4.	Basic setting	300	5	51 - 79	15	44 - 86	23
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : Projection of control rack on drive side when set to equal value
A = approx. 39 mm

- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:
9 400 361 605

Pump: FA-PE 6/9M/180/700/3 S 27

Customer: SACM

Governor:

Engine: AGO195V12CSMR

Fuel-supply p:

Power: kw(Bhp)

Injector:

Applic.:

Perm.pres.: 1.5 bar NHA: 0 681 443 022

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 172 + 3 bar

(mm) 8 x 2 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

1 417 413 000

40 +5° C

Test pump as per AP _____ LPC $4.4 + 0.1$ mm at CRT = $\frac{26}{\text{mm}}$ mm
 DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side

Cam sequence: 1 - 5 - 3 - 6 - 2 - 4

Cam spacing: 0 60 120 180 240 300

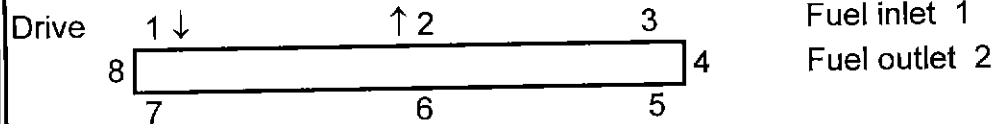
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

Delivery quantities

Setting values

Checking values

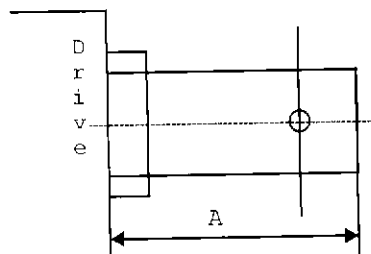
		n rpm	Setting values (mm ³ /H)			Checking values (mm ³ /H)	
	CRT mm		Mean value	Spread	Mean value	Spead	
1.	Basic setting	750	23	1060 - 1080	18		
2.	Basic setting	750	15	568 - 592	22		
3.	Basic setting	300	12	264 - 274	27		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

Projection of control rack on drive side
when set to equal value
A = approx. 39 mm



- Enter measured value in test sheet
- Enter projection when switched off (CRT = 0)

Testoil-ISO 4113

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:
9 410 365 822

Pump: PE 8/10/150/100 LS 44

Customer: Deutz-MWM

Governor:

Engine: TBD 604B V8

Fuel-supply p:

Power: kw(Bhp)

Injector:

Applic.: Lokom./Katamaran

Perm pres: 1.5 bar NHA: 1 688 901 029

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 220 + 3 bar

(mm) 8 x 4 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

40 +5° C

P.S. 1 left, P.S. 2 right

9 413 369 310

Test pump as per AP _____ LPC $3.0+0.1$ mm at CRT = > 17 mm
 DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side

Cam sequence: 1 - 5 - 7 - 8 - 6 - 3 - 4 - 2

Cam spacing: 0 45 90 135 180 225 270 315 °CS

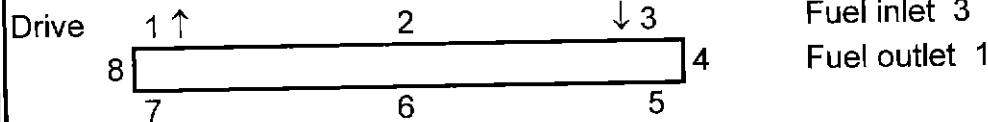
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.15 °CS

Delivery quantities

Setting values

Checking values

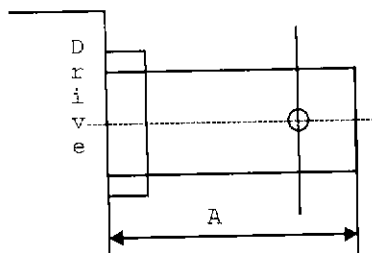
		n rpm	CRT mm	Mean value	Spread	Mean value	Spread
1.	Basic setting	750	18.0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

LPC setting.

Set cyl. 1 to LPC with dial gauge (inlet pressure \approx 0.3 bar)

The angular cam is set with inlet pressure \approx 0.3 bar and delivery valve screwed in, without forward - delivery valve.

Testoil-ISO 4113

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:
9 410 365 824

Pump: PE 8/10/150/100

Customer: Deutz-MWM

Governor:

Engine: TBD 604B V8

Fuel-supply p:

Power: 112 kw(Bhp
0)

Injector:

Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar NHA: 1 688 901 029

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 220 + 3 bar

(mm) 8 x 4 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

9 413 369 310

40 +5° C

Test pump as per AP _____ LPC 3.0 + 0.1 mm at CRT = 20 mm
 DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS
 wise = _____

Cylinder 1 on drive side

Cam sequence: 1 - 5 - 4 - 2 - 6 - 3 - 7 - 8

Cam spacing: 0 45 90 135 180 225 270 315 °CS

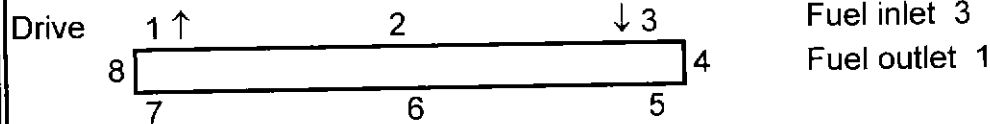
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.15 °CS

Delivery quantities

Setting values

Checking values

		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	18.0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						

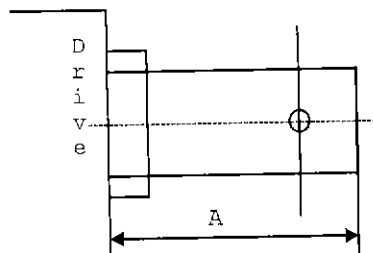


Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

LPC setting.

Set cyl. 1 to LPC with dial gauge (inlet pressure ≈ 0.3 bar).



The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward - delivery valve.

Testoil-ISO 4113

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:
9 410 365 825

Pump: PE 8/10/150/100 LS 47

Customer: Deutz-MWM

Governor:

Engine: TBD 604B V8

Fuel-supply p:

Power: kw(Bhp)

Injector:

Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar NHA: 1 688 901 029

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 220 + 3 bar

(mm) 8 x 4 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

9 413 369 310

40 +5° C

Test pump as per AP _____ LPC 3.0 + 0.1 mm at CRT = 12 mm
 DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side

Cam sequence: 1 - 5 - 7 - 8 - 6 - 3 - 4 - 2

Cam spacing: 0 45 90 135 180 225 270 315 °CS

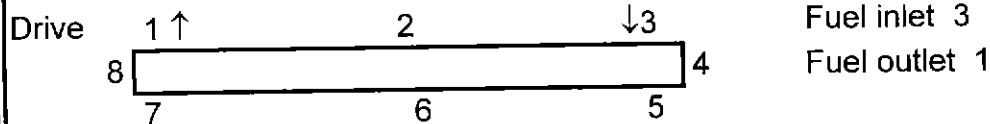
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.15 °CS

Delivery quantities

Setting values

Checking values

		n rpm	Setting values (mm ³ /H)			Checking values (mm ³ /H)	
	CRT mm		Mean value	Spread	Mean value	Spead	
1.	Basic setting	750	18.0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						

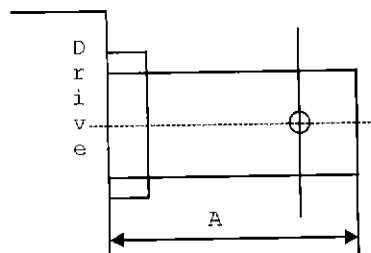


Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

LPC setting.

Set cyl. 1 to LPC with dial gauge (inlet pressure ≈ 0-3 bar).



The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward - delivery valve.

Testoil-ISO 4113

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 826
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Pump: PE 8/10/150/100 LS 48	Customer: Deutz-MWM
Governor:	Engine: TBD 604B V8
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar	NHA: 1 688 901 029	Press.I: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS	Open.p.: 220 + 3 bar	(mm) 8 x 4 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 9 413 369 310	40 +5° C

Test pump as per AP _____ LPC 3.0 + 0.1 mm at CRT = 12 mm

DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS

wise _____ = _____

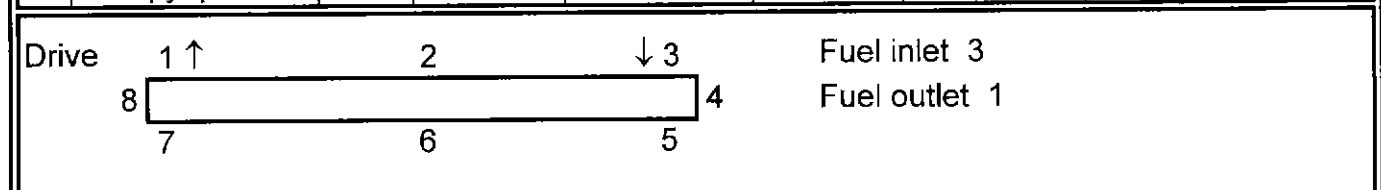
Cylinder 1 on drive side

Cam sequence: 1 - 3 - 4 - 8 - 6 - 5 - 7 - 2

Cam spacing: 0 45 90 135 180 225 270 315 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.15 °CS

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	18:0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : LPC setting.
Set cyl. 1 to LPC with dial gauge (inlet pressure ≈ 0.3 bar).

D
r
i
v
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A

The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward – delivery valve.

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 827
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Pump: PE 8/10/150/100 LS 49	Customer: Deutz-MWM
Governor:	Engine: TBD 604B V8
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.: Lokom./Katamaran

Perm pres.: 1.5 bar	NHA: 1 688 901 029	Press.l: 1 680 750 027	Test oil: ISO 4113
Perm.pos: PS	Open.p.: 220 + 3 bar	(mm) 8 x 4 x 1500	
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Overflow valve: 9 413 369 310	40 +5° C

Test pump as per AP _____ LPC 3.0 + 0.1 mm at CRT = 12 mm

DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS

wise _____ = _____

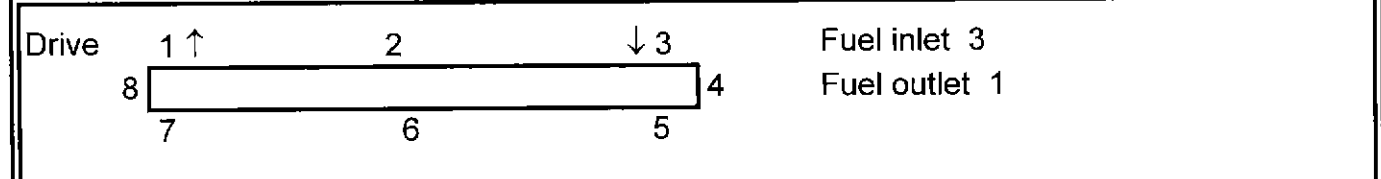
Cylinder 1 on drive side

Cam sequence: 1 - 5 - 4 - 2 - 6 - 3 - 7 - 8

Cam spacing: 0 45 90 135 180 225 270 315 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing:± 0.15 °CS

Delivery quantities		Setting values (mm ³ /H)				Checking values (mm ³ /H)	
		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	18:0	1010 -1028	28		
2.	Basic setting	750	7.0	Measure			
3.	Basic setting	300	5:5	Measure			
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : LPC setting.
Set cyl. 1 to LPC with dial gauge (inlet pressure ≈ 0.3 bar).

D
r
i
v
e

A

The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward – delivery valve.

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:
9 410 365 829

Pump: PE 8/10/150/100 LS 51

Customer: Deutz-MWM

Governor:

Engine: TBD 620 V16

Fuel-supply p:

Power: 224 kw(Bhp
0)

Injector:

Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar NHA: 1 688 901 029

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 220 + 3 bar

(mm) 8 x 4 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

9 413 369 310

40 +5° C

Test pump as per AP _____ LPC $3.0 + 0.1$ mm at CRT = > 17 mm
 DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS
 wise = _____ °CS

Cylinder 1 on drive side

Cam sequence: 1 - 8 - 3 - 6 - 5 - 7 - 2 - 4

Cam spacing: 0 22.5 45 157.5 225 270 292.5 337.5 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.15 °CS

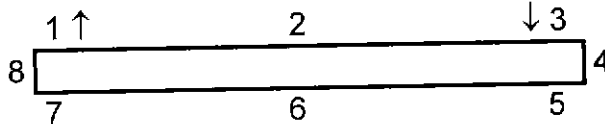
Delivery quantities

Setting values

Checking values

		n rpm	CRT mm	Mean value	Spread	Mean value	Spead
1.	Basic setting	750	18.0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						

Drive



Fuel inlet 3

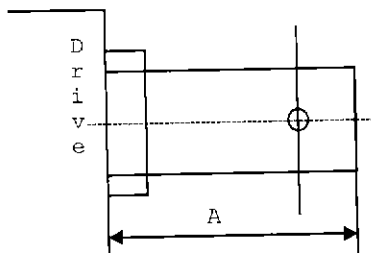
Fuel outlet 1

Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

LPC setting.

Set cyl. 1 to LPC with dial gauge (inlet pressure ≈ 0.3 bar).



The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward - delivery valve.

Testoil-ISO 4113

BOSCH**IN-LINE INJECTION PUMPS**

Testing and setting values

Assembly no.:

9 410 365 831

Pump: PE 8/10/150/100 LS 52

Customer: Deutz-MWM

Governor:

Engine: TBD 620 V16

Fuel-supply p:

Power: 224 kw(Bhp
0)

Injector:

Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar NHA: 1 688 901 029

Press.l: 1 680 750 027

Test oil:

Perm.pos: PS Open.p.: 220 + 3 bar

(mm) 8 x 4 x 1500

ISO 4113

When control rack on rear of pump:

Overflow valve:

P.S. 1 left, P.S. 2 right

9 413 369 310

40 +5° C

Test pump as per AP _____ LPC $3.0 + 0.1$ mm at CRT = 12 mm
 DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS
 wise _____ = _____

Cylinder 1 on drive side

Cam sequence: 1 - 8 - 7 - 4 - 5 - 2 - 6 - 3

Cam spacing: 0 67.5 18 205.5 225 247.5 292.5 315 °CS

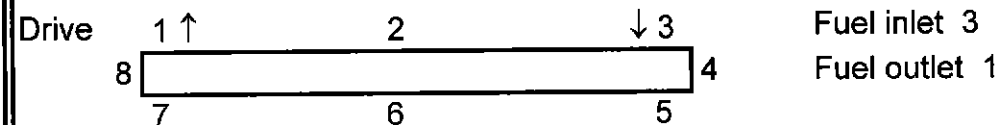
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.15 °CS

Delivery quantities

Setting values

Checking values

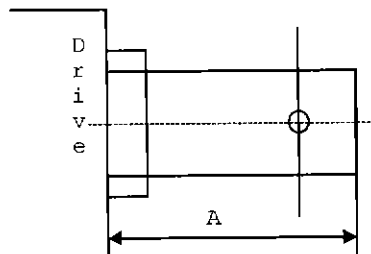
		n rpm	CRT mm	Setting values (mm ³ /H)		Checking values (mm ³ /H)	
				Mean value	Spread	Mean value	Spread
1.	Basic setting	750	18.0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps :

LPC setting.

Set cyl. 1 to LPC with dial gauge (inlet pressure ≈ 0.3 bar).

The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward - delivery valve.

Testoil-ISO 4113

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 018
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Pump: PE 12/10/150/100 LS 54	Customer: Deutz-MWM
Governor:	Engine: TBD 620 V12
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.: Lokmo./Katamaran

Perm pres. 1.5 bar	NHA: 1 688 901 029	Press.l: 1 680 750 027
Perm.pos: PS	Open.p.: 220 + 3 bar	(mm) 8 x 4 x 1500
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Test oil: ISO 4113
		Overflow valve: 9 413 369 310
		40 +5° C

Test pump as per AP _____ LPC 3.0 + 0.1 mm at CRT = > 17 mm
 DOR clock looking at drive/SD diff. betw. CRT = +0.5 mm u.CRT_{max} °CS
 wise = _____ °CS

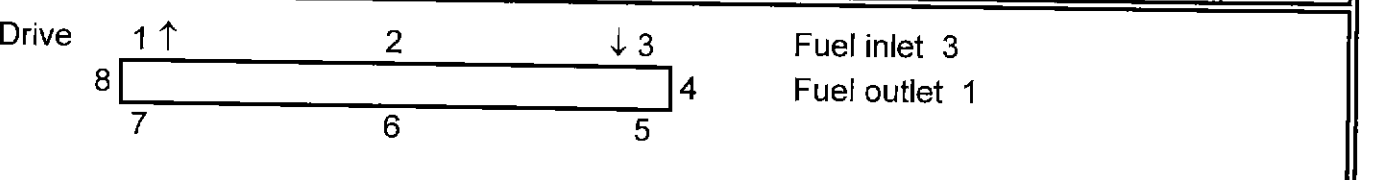
Cylinder 1 on drive side

Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6

Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 345 °CS

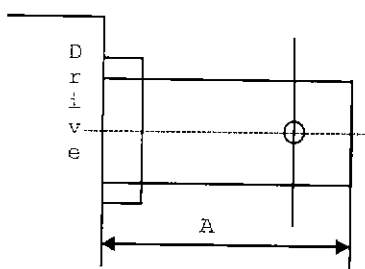
FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.5 °CS

	Delivery quantities	Setting values			Checking values		
		n rpm	CRT mm	(mm ³ /H) Mean value	Spread	(mm ³ /H) Mean value	Spread
1.	Basic setting	750	18:0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : LPC setting.
Set cyl. 1 to LPC with dial gauge (inlet pressure ≈ 0.3 bar).



The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward - delivery valve.

Testoil-ISO 4113

BOSCH	IN-LINE INJECTION PUMPS Testing and setting values	Assembly no.: 9 410 365 019
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Pump: PE 12/10/150/100 LS 55	Customer: DeUTZ-MWM
Governor:	Engine: TBD 620 V12
Fuel-supply p:	Power: kw(Bhp)
Injector:	Applic.: Lokom./Katamaran

Perm.pres.: 1.5 bar	NHA: 1 688 901 029	Press.l: 1 680 750 027
Perm.pos: PS	Open.p.: 220 + 3 bar	(mm) 8 x 4 x 1500
When control rack on rear of pump: P.S. 1 left, P.S. 2 right		Test oil: ISO 4113
		Overflow valve: 9 413 369 310
		40 +5° C

Test pump as per AP _____ LPC $3.0 + 0.1$ mm at CRT = 12 mm

DOR clock looking at drive/SD diff. betw. CRT = $+0.5$ mm u.CRT_{max} °CS

wise _____ = _____

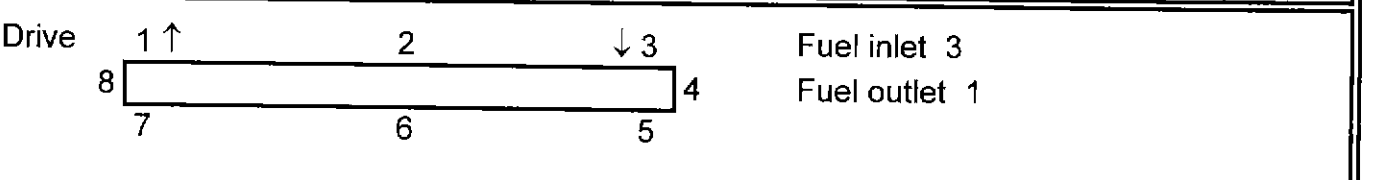
Cylinder 1 on drive side

Cam sequence: 1 - 12 - 8 - 5 - 3 - 10 - 9 - 4 - 2 - 11 - 7 - 6

Cam spacing: 0 45 60 105 120 165 180 225 240 285 300 345 °CS

FB mark : Cyl. no. _____ Tol.f.cam spacing: ± 0.15 °CS

	Delivery quantities	n rpm	Setting values (mm ³ /H)			Checking values (mm ³ /H)	
			CRT mm	Mean value	Spread	Mean value	Spread
1.	Basic setting	750	18.0	1010 - 1028	28		
2.	Basic setting	750	7.0	230 - 250	28		
3.	Basic setting	300	5.5	70 - 80	20		
4.	Basic setting						
5.	Del.qty. profile						
6.	Del.qty. profile						



Other test operations: CRT0 = defined by marking the control rack with a locating pin

Addit. work steps : LPC setting.
Set cyl.1 to LPC with dial gauge (inlet pressure ≈ 0.3 bar).

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The angular cam is set with inlet pressure ≈ 0.3 bar and delivery valve screwed in, without forward - delivery valve.

Inhaltsverzeichnis

<u>Einspritzpumpe</u>	<u>Position</u>	<u>Komb.Nr.</u>
FA-PE 6/9M/170/300/3 S 7	B6	9 400 361 604
FA-PE 6/9M/170/700/3 S 2	B1	9 400 361 601
FA-PE 6/9M/170/700/3 S 3	B2	9 400 361 602
FA-PE 6/9M/170/700/3 S 6	B5	9 400 361 603
FA-PE 6/9M/180/300/3 S 28	C3	9 400 361 606
FA-PE 6/9M/180/700/3/S 27	C2	9 400 361 605
FA-PE 6/10/150/300/3 LS 11	B10	9 400 365 602
FA-PE 6/10/150/300/3 LS 13	B12	9 400 365 603
FA-PE 6/10/150/100 LS 17	B16	9 410 365 605
FA-PE 6/10/150/100 LS 17-1	A3	9 400 365 608
FA-PE 6/10/150/100 LS 18	B17	9 410 365 606
FA-PE 6/10/150/100 LS 18-1	A4	9 400 365 609
FA-PE 6/10/150/300 RS 10	B9	9 400 365 601
FA-PE 6/10/150/300 RS 15	B14	9 400 365 604
FA-PE 6/10/150/300 RS 15-1	A1	9 400 365 607
FA-PE 6/10/160/300 RS 31	A17	9 400 365 811
FA-PE 6/10/160/300 RS 34	A14	9 400 365 612
FA-PE 6/10/160/300 RS 38	A6	9 400 365 613
FA-PE 8/9M/180/100/S 24	B23	9 400 361 805
FA-PE 8/9M/180/100/S 25	B24	9 400 361 806
FA-PE 8/9M/170/900/6 S 4	B3	9 400 361 801
FA-PE 8/9M/170/500/6 S 5	BA	
FA-PE 8/9M/170/500/6 S 9	B8	9 400 361 804
FA-PE 8/9M/170/900/6 S 8	B7	9 400 361 803
FA-PE 8/10/150/100 LS 12	B11	9 410 365 801
FA-PE 8/10/150/100/LS 14	B13	9 410 365 802
FA-PE 8/10/150/100 LS 20	B18	9 400 365 804
FA-PE 8/10/150/100 LS 20-1	A22	9 400 365 807
FA-PE 8 /10/150/100 LS 20-1	A21	9 400 365 808
FA-PE 8/10/150/100 LS 21	B20	9 410 365 805
FA-PE 8/10/150/100 LS 36	A12	9 400 365 814
FA-PE 8/10/160/900 LS 39	A5	9 400 365 815
FA-PE 8/10/150/900/4 LS 19	B18	9 410 365 803
FA-PE 8/10/150/900 4 LS 26	C1	9 410 365 809
FA-PE 8/10/150/900 4 LS 26-1	A20	9 410 365 809
FA-PE 8/10/160/900 4 LS 30	A18	9 400 365 811
FA-PE 8/10/160/900/4 LS 33	A15	9 400 365 812
FA-PE 8/10/160/100 LS 35	A13	9 400 365 813
FA-PE 8/10/160/100 LS 40	A10	9 400 365 816
FA-PE 8/10/160/100 LS 41	A9	9 400 365 817
FA-PE 8/10/150/100 RS 42	C4	9 400 365 818
FA-PE 10/9M/180/100/S 22	B21	9 410 361 001
FA-PE 10/9M/180/100/S 23	B22	9 410 361 002
FA-PE 12/10/150/900 LS 16-1	A2	9 410 365 012
FA-PE 12/10/150/900/6 LS 16	B15	9 410 365 010
FA-PE 12/10/160/100 LS 37	A11	9 400 365 015
FA-PE 12/10/160/100 LS 43	A7	9 400 365 017
FA-PE 12/10/160/900 LS 29	A19	9 400 365 013
FA-PE 12/10/160/300 LS 32	A16	9 400 365 014
FA-PE 12/10/160/900 LS 42	A8	9 400 365 016
PE 8/10/150/100 LS 43	C10	9 410 365 827
PE 8/10/150/100 LS 44	C5	9 410 365 822
PE 8/10/150/100 LS 45	C6	9 410 365 823
PE 8/10/150/100 LS 46	C7	9 410 365 824
PE 8/10/150/100 LS 47	C8	9 410 365 825

PE 8/10/150/100 LS 48	C9	9 410 365 826
PE 8/10/150/100 LS 50	C11	9 410 365 828
PE 8/10/150/100 LS 51	C12	9 410 365 829
PE 8/10/150/100 LS 52	C13	9 410 365 831
PE 8/10/150/100 LS 53	C14	9 410 365 832
PE 12/10/150/100 LS 54	C15	9 410 365 018
PE 12/10/150/100 LS 55	C16	9 410 365 019